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Patent Pages



**JP9062596A2: ELECTRONIC MAIL SYSTEM**

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Country: **JP Japan**

Kind:

Inventor(s): **NISHIOKA GENJI**

Applicant(s): **HITACHI LTD**

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Issued/Filed Dates: **March 7, 1997 / Aug. 25, 1995**

Application Number: **JP1995000217678**

IPC Class: **G06F 13/00; G09C 1/00; G09C 1/00; G09C 1/00; H04L 9/32; H04L 12/54; H04L 12/58;**

Abstract:

**Problem to be solved:** To improve the security related to transmission/reception of electronic mails.

**Solution:** This system consists of a data base 100 where the public key of each user is registered, at least two information processors 101a and 101b, and IC cards 103a and 103b. Secret keys of users carrying IC cards 103a and 103b and the public key of an authenticating station are stored in memories of IC cards 103a and 103b. In a transmission source A (information processor 101a), its own secret key stored in the memory is used in the IC card 103a to generate a digital signature for transmission data which includes mail data P, user information Ia for discrimination of the transmission source A, user information for discrimination of a transmission destination B, and time information T specifying the transmission date. In a reception side B (information processor 101b), the transmission source, the destination, and the generation date of the electronic mail are verified based on the digital signature included in the received electronic mail.

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Other Abstract Info:

DERABS G97-217348 DERG97-217348

Foreign References:

(No patents reference this one)



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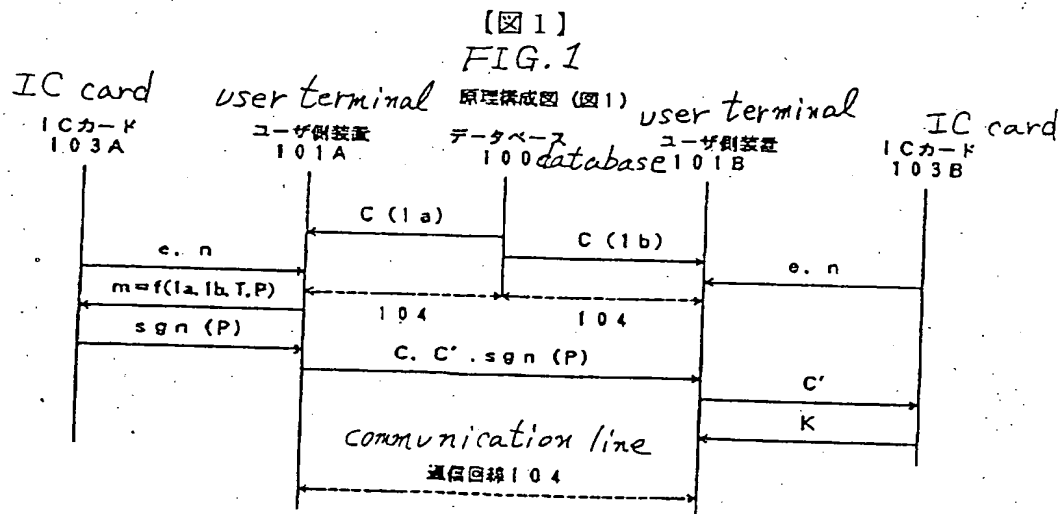
U.S. Class  
by number

**TDB**  
IBM Technical  
Disclosure Bulletin

3. Title: AN ELECTRONIC MAIL SYSTEM  
 Laid-open Publication Number: 9-62596  
 Date of Publication: March 7, 1997  
 Applicant: HITACHI

Summary: A digital signature  $\text{sgn}(P)$  is created by a digital signature creating portion 306a in IC card 103a from data to be transmitted including an address of receiver, an address of sender, time and date, and a mail text using a secret key stored in a memory 303a, as shown in Figs. 3 and 4, when the data processing apparatus 101A is the source and the data processing apparatus 101B is the destination. The data processing apparatus 101B obtains a public key from a database 100 and verifies the received data using the public key.

The English translation of terms used in Figs. 1, 3 and 4 is attached hereinafter.

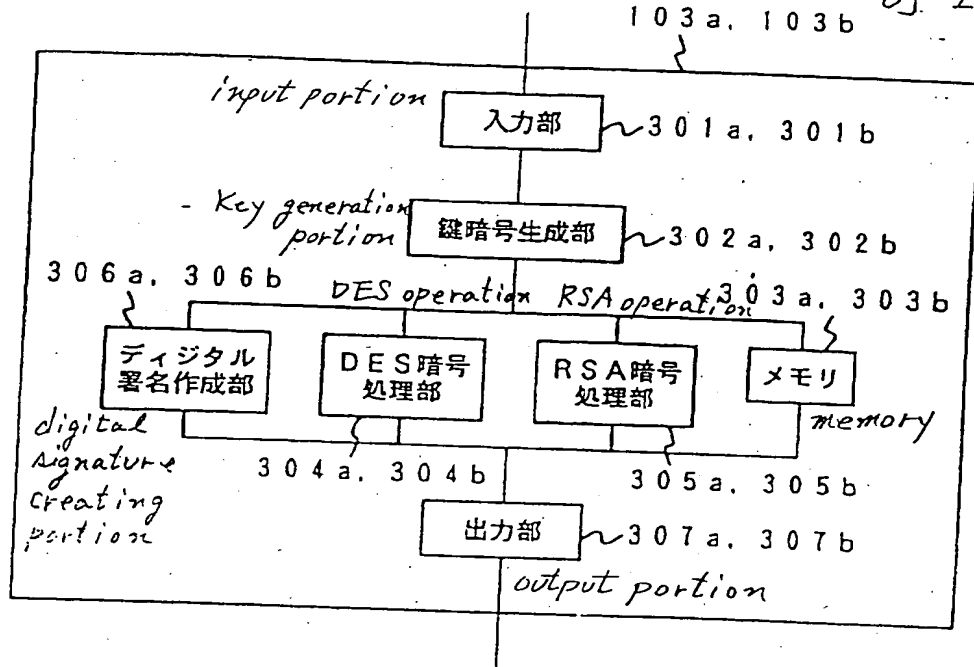


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(図3)

FIG. 3

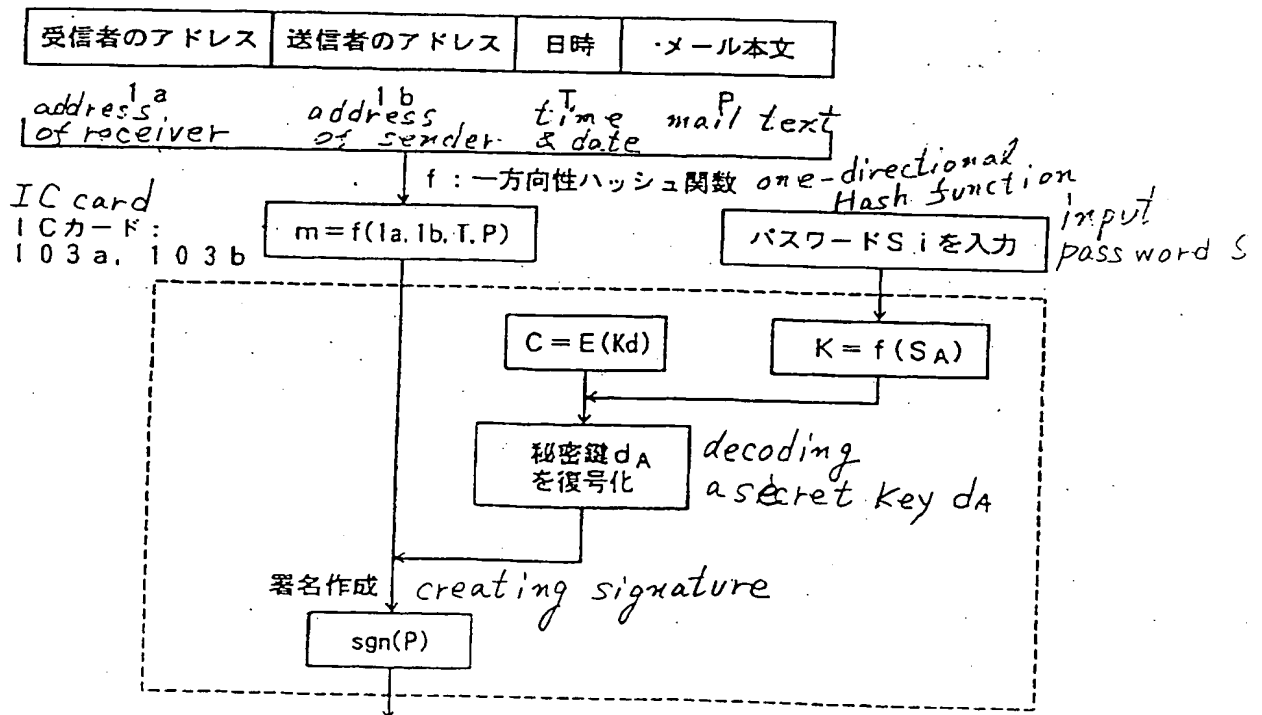
ICカード内部構成 (図3) internal structure of IC card



(図4)

FIG. 4

transmission data 署名作成手順 (図4) signature creating process  
送信データ



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## Document 1

PAN 1997-217348 You may bookmark this page

Derwent Title

Electronic mail encryption system for managing security of transmission and reception of electronic mail in Internet produces digital signature using secret key of transmitting agency and adds digital signature to transmitting information of electronic mail

Patentee details

(HITA ) HITACHI LTD;( HITA )

Inventor names

No Data

Abstract

JP-09062596 A; The system has a data base (100) in which the open key of each user is registered. The secret and the open keys of the user are stored in the memory of a pair of IC cards (103A,103B). A digital signature production part produces the digital signature using the secret key of a transmitting agency. A transmitter adds the digital signature with the transmitting data of the electronic mail and transmits the electronic mail to a receiving side. The transmitting data contains the user information and the transmitting time. The digital signature production part verifies the transmission place and transmitting origin of the electronic mail using the open key of the transmitting agency. The transmitting agency and the specific user information are verified using the secret key of the transmitting agency. The receiving side verifies the address, the production time and the digital signature contained in the electronic mail received from the transmitting origin of the electronic mail.

Advantage

Improves security of transmission and reception of electronic mail.

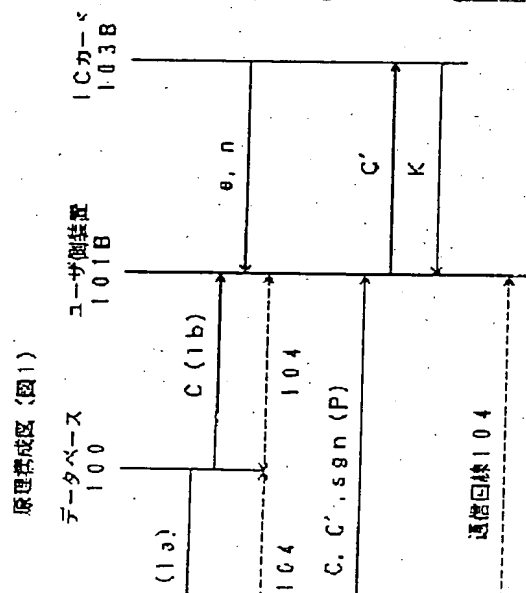
Use Advantage

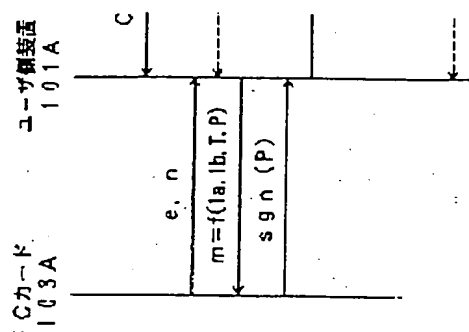
No Data

Title Terms

std; electronic mail encryption system manage secure  
transmission reception electronic mail produce digital signature  
secret key transmit agent add digital signature transmit  
information electronic mail

Patent: JP 09062596 A - Image No.: 1 [Hi Res Image]





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<u>Patent Family</u>	<u>Country &amp; No.</u>	<u>Date</u>	<u>Kind</u>	<u>Derwent Week</u>	<u>Patent Delivery</u>
	JP-09062596	07-Mar-1997	A	199720	<u>Download</u>
<u>Priority details</u>	<u>Country &amp; No.</u>	<u>Date</u>			
	JP-0217678	25-Aug-1995			
<u>Application details</u>	<u>Country &amp; No.</u>	<u>Date</u>			
	JP-0217678	25-Aug-1995			
<u>Earliest Priority</u>	25-Aug-1995				
<u>IPC</u>	G06F-013/00; G09C-001/00; H04L-009/32; H04L-012/54; H04L-012/58				
<u>Derwent Class</u>	P85	GENERAL / Education, cryptography, adverts			
	T01	Computing and Control / Digital Computers.			
	W01	Communications / Telephone and Data Transmission Systems.			
<u>Manual coding</u>	T01-	Data storage and memory, interconnection, data transfer / Electronic mail			
	H07C1				
	W01-	Digital information transmission / Blockwise coding using registers/memories			
	A05A				
	W01-	Digital information transmission / Access and routing			
	A06E1				
	W01-	Digital information transmission / Stored and forward switching			
	A06G2				
	W01-	Digital information transmission / Other			
	A06X				
<u>Citations</u>	No data available, please see the help files for more information				
<u>Countries</u>	JP				
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